

THE
DRY TREATMENT IN GYNECOLOGY.

PRACTICAL DETAILS: THE REMEDIES, THEIR
USE AND APPLICATION.

BY

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SOCIETY, ETC.

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THE DRY TREATMENT IN GYNECOLOGY.

PRACTICAL DETAILS: THE REMEDIES, THEIR USE AND APPLICATION.¹

I FEEL called upon to supplement the brief paper recently read before the St. Louis Gynecological Society, in which I first expressed my views upon the importance of the dry treatment in gynecological practice; and since it is impossible for me to answer individually the numerous inquiries from practitioners favorably impressed with the dry treatment and anxious to test its merits, who ask for information as to the various preparations of cotton, wool, or jute, where they can be obtained, how they are to be applied, I will now give the details of the new method as gradually evolved and now adopted in my practice.

¹ The treatment here described has been my routine practice, and has been taught in my clinic for years, and I had almost forgotten this paper, which has been lying in my desk for a twelvemonth. Now that methods are being published as new which I have long taught and practised, I deem it time to advance the claim of priority, and there can be no more favorable opportunity than the present. As the practitioner is abandoning the pessary and the intrauterine application, other methods will be more readily received and more thoroughly tested. I hope for a fair trial of the Dry Treatment, since I find so honored a leader as Dr. Emmet moving in the same direction; having discarded pessary and applicator, he relies upon the hot douche, the vaginal application of iodine, and the glycerin tampon. This is the practice which I have taught; but for the glycerin tampon, filthy and limited in use, I offer the Dry Treatment, cleanly and with a wide range of application, which in no way interferes with that invaluable aid to the gynecologist, the electric current.

By the dry treatment in gynecological practice I mean the treatment of female pelvic disorders, uterine, circum-uterine, and vaginal, by the use of powders and cotton, wool, or jute in the dry state, impregnated with the medicinal agent, or serving as a carrier for powders. I have used the term because it corresponds in gynecological practice to the treatment which has of late years proven so effective in surgery and in the management of disorders of other organs. Most of the applications are old; these I have systematized and utilized as "The Dry Treatment" in the management of uterine disorders, for which gynecologists now and then have used some one of these numerous applications. The range of practice to which I have adapted it gives it the dignity of a method, in which are united and culminate the isolated efforts of many of our most progressive workers, who for years have employed some detail or other of the method: thus Taliaferro advocated the mechanical qualities of the cotton tampon as a compressor and a support antiseptic gauze and cotton is used much, of late, as a vaginal dressing in surgical cases by German operators; clay has been used as a vaginal packing to give rest to the pelvic viscera; so other individual features have been utilized, but have never found general favor: Kugelmann, of Hanover, made the beginning in the use of dry powder as an intrauterine application: Eduard Martin, of Berlin, my first instructor, used bacilla of tannin and of iron over twenty years ago; and, in a loose way, the tampon has been used by many.

ADVANTAGES OF THE METHOD.—The advantages I claim for this method are in brief the following:

1. *It is safe.* No evil results are liable to follow from the nature of the remedy and the site of the treatment: serious results are out of the question, and even discomfort, which may be caused by excessive or injudicious applications, by a tampon too large or badly placed, is readily obviated, as the agent is thoroughly under the control of the patient, who can remove the tampon herself with ease, and relieve such pain as may be excited, even by the medicinal agent used, by washing away the remedy by means of the vaginal douche.

2. *Immediate comfort is afforded* by the treatment, which causes no pain upon application, but relieves the more annoying symptoms at once, contrary to the immediate effect of intrauterine medication, which is more or less painful, if not danger-

ous, however good the results which follow. The preparatory cleansing is always agreeable, the mechanical effect of many of the powders used is soothing, and the tampon eases the pain or nervous irritation, caused by pressure, friction, and displacement of parts, as soon as it is placed.

3. *The effect produced is mild and continuous.* More decided and permanent, less irritating and dangerous is the result brought about by gentle, well-distributed, and permanent pressure, and by the continuous absorption of a remedy in a mild form, as is the case when the elastic tampon is used for support, and powders and cottons for medication, whilst by most methods heretofore in vogue the remedies applied were of necessity proportionately severe, as everything was accomplished by the application as made during the few moments of treatment.

4. *Rest is given the pelvic viscera:* the tampon is the uterine splint. Applications so made, whether for medication, compression, or support, rest and steady the parts, serving as a splint to the diseased tissues ; fixing them, to a certain extent, even during motion of the body ; preventing friction of the inflamed or abraded cervix and straining of the tissues, traction upon the ligaments, and serving to carry out that all-important but much neglected aid in gynecological treatment, the prevention of coition.

5. *The treatment is clean and antiseptic.* Secretions are absorbed, cleanliness and asepsis of the parts is assured by the very nature of the treatment ; the patient does not soil herself or her clothing ; the physician does not stain his hands and instruments or the linen and carpets of his client. It is only in case of a superabundance of uterine or vaginal discharge, which is not absorbed by the tampon, that part of the medicinal agent may be carried away with the escaping fluid, which may, when perchloride of iron or tannin is used, slightly stain the patient's clothing, and this must then be guarded by a cloth.

6. *All the pelvic viscera are influenced,* whether so intended by the physician or not, though certain parts only are reached directly ; hence he must of necessity regard parts which generally escape attention. The treatment not only affects the organs mainly diseased and the object of attack, but all surrounding tissues which sympathize to a certain extent, so that the method of necessity leads to better and more general results. The endometrium cannot be reached directly, but must be acted upon

through the tissues, which is by far more safe and rational than the treatment of the diseased uterus or pelvic tissues through the endometrium, as is often done under the despotic sway of the intrauterine swab. This precaution is of exceeding importance, on account of the very common yet often very obscure and comparatively slight affections of the peritoneal and subperitoneal tissues, the ovaries, ligaments, and tubes, which are disregarded by the routine gynecologist and greatly aggravated by pessaries and intrauterine applications; whilst even without especial intent on the part of the practitioner they are by this method not endangered but directly benefitted. Most pelvic affections of necessity determine some more or less marked change in the uterine mucosa; no metritis, perimetritis, or salpingitis attains a chronic stage without causing at least a congestion or hypersecretion of the endometrium, evident to the eye, and hence the centre of attack to the detriment of the patient. In direct contrast to this prevalent and dangerous method stands the Dry Treatment, which overcomes these secondary derangements of that small and delicate membrane by removing such obstructions to the circulation as may exist by reposition of the parts, by preventing renewed irritation by reason of the rest and fixation afforded, and by medication of all the diseased tissues.

7. *A variety of purposes can be accomplished by one and the same application.* Several medicinal agents may be used at one time, even directed to different parts, and the mechanical properties of the agent which carries them can also be utilized in a number of ways. The tampon which is used to replace and support the uterus may at the same time serve to prevent friction of the eroded cervix against the vaginal wall; it fixes and rests the part and protects it, whilst it medicates by the drug it carries. This may be iodine, to further absorption in the hyperplastic uterus; this iodized tampon may be covered by a layer of ferrated cotton, which acts as an astringent to the vaginal walls; iodoform may have been applied to the eroded cervix, yet bismuth and alum can be dusted over the vaginal walls to cleanse, protect, and contract. By judicious management, many indications can be fulfilled by the one application.

8. *This method neither excludes nor does it interfere with*

other methods of treatment, such as mechanical manipulations, reposition, intrauterine applications, or the use of electricity.

Such are the advantages of this method of treatment, and I have been so well satisfied with the results that I feel justified in saying that the practice of gynecology is thereby rendered more satisfactory, more safe, and more agreeable. This has been my experience in private practice amongst my clientele, and it has been equally satisfactory in my clinic at the Post-graduate School. It is in the clinic, among the working poor, that the advantages of this treatment are most strikingly evident, they come from their work, in the cars or on foot, they return to their work when they have been treated, and they go back relieved of their pains, strengthened, and better able to resume their task. If I make an intrauterine application, it is with a mild remedy and gives no pain, unless the case be one of hemorrhage; the effect of the powder upon the irritated parts is soothing, the tampon rests and supports the displaced parts, prevents traction, pressure, or friction, and the application itself causes no pain. If the tampon is properly placed, the patient invariably experiences relief, unless during the very first disturbance of greatly displaced parts; if cellulitis, chronic periuterine inflammation, which is so very common, co-exists, this is benefitted, whilst this is the very condition which makes the pessary and the applicator so dangerous. Certainly all who have witnessed the method and the results achieved—truly surprising for an out-door clinic—will testify to this; patients are not made to suffer, and their labors are not interfered with, but the treatment is easy and they go away relieved, better able to resume their vocations, be it at the sewing machine, the counter, or the washtub, never in distress or cramped with pain.

WHY THE TREATMENT WAS RECEIVED WITH FAVOR.

I have been gratified at the reception accorded the paper in which I first announced my results, and at the expressions of commendation from all who have witnessed or tried the treatment, and I may say that it has found favor, not only by reason of its inherent merits, but also because the pessary and the intrauterine application have now been abundantly tried and are being relegated to their proper and very limited sphere of usefulness. The practitioner has failed to derive the promised benefits from these greatly over-estimated methods, and he is

no longer willing to subject his patient to the dangers which their universal use entails, with so little prospect of reward.

The new departure is in harmony with the feeling of the profession at large and the *reaction now taking place* against the routine practice, the *aggressive and dangerous practice of powerful intrauterine medication*, and the *indiscriminate use of pessaries*. The time has come for more careful diagnosis, for the adoption of strict indications for treatment and for the introduction of a more mild, safe, and certain method of uterine therapeutics. Gynecological practice has extended beyond the reach of a few experts and is in the hands of the profession at large, who find not only that, by following text-books and journal articles in their practice, the expected results have not been attained, but, on the contrary, mischief is often done. Pessary and intrauterine application, each most excellent in its proper place, have become the routine treatment; to speak plainly, we can almost say that gynecological practice turns about the insertion of a pessary or the application of tincture of iodine, nitrate of silver, or Battey's fluid to the uterine cavity. Go to the office of the so-called specialist, and what do you find upon his table? Some absorbent cotton, a bottle of iodine, and Battey's fluid, or nitrate of silver, and a drawer full of pessaries. This is his armamentarium with which he haunts every case of "female disease." If we listen to the experience of thinking practitioners, much suffering is caused, and often more damage than good is done, by this indiscriminate routine gynecology.

The ill results which follow the use of pessary and applicator are due to the prevalence of low and often occult forms of inflammation of ovaries, tubes, or ligaments, accompanying if not causing uterine disease; the uterine cavity, the endometrium, and the cervical mucosa have been the centre of treatment, and of treatment too violent for the good of the sensitive circum-uterine tissues which are intimately connected by lymphatic channels and readily respond to any attack upon the endometrium. According to the routine practice of gynecology, if a discharge existed, the uterine cavity was mopped with iodine, and a displacement of the uterus was rectified by the insertion of a pessary regardless of cause or surrounding conditions; what was the consequence? Although the uterine catarrh perhaps yielded to the application of iodine or nitrate of silver, though the discharge diminished, the patient grew worse;

her pelvic suffering increased, and then, especially if no improvement was found in the discharge, the practitioner blamed his own timidity, and resorted to stronger intrauterine applications, with still worse results. If he did not succeed in relieving a displacement by the pessary, the instrument did not fit and another was tried; if suffering was caused, the patient was urged to endure it, as the displacement would be cured, and she would be well if she would only stand the pessary, and so women were brought from bad to worse.

Physicians have come to distrust both pessary and intrauterine medication; both have become a routine practice and both have caused much mischief, mainly by the irritation of perituterine tissues and the aggravation of perimetritic inflammations which so often co-exist, or even pre-exist, and cause the comparatively trifling intrauterine disease, which has been made the centre of attack. I do not wish to be understood to say that intrauterine applications are to be consigned to oblivion or that they are improper; I fully appreciate their importance, I consider them necessary and irreplaceable in primary morbid conditions of the endometrium, or in such as are not accompanied by inflammations of the surrounding tissues. Nor would I say that the pessary is out of place in malposition of the uterus due to mere relaxation of the supporting tissues; on the contrary, both the intrauterine application and the pessary are indispensable, all-important for certain uterine disturbances; but these are only some of the many and varied forms of the diseases of the pelvic viscera, whilst to the routine gynecologist the uterus is the centre of all female complaints, to him diseases of women are womb troubles, inflammation as shown by discharge is treated with the iodine swab, and displacements are corrected by the pessary. The excellent and often astonishing results at times achieved by these methods of treatment have caused them to become routine, and now, since they are thoroughly popularized, the evils resulting from them become apparent to a degree that other methods are looked for, and the dry cotton treatment thoroughly meets the wants of the practitioner. Compared with fluid applications to the endometrium, it is without danger, we avoid the irritation of the sensitive cavity; the action is mild and continuous, not momentary and intense. Compared with the pessary, it affords support without pain and without danger of inflammation; and compared with both, the dry treat-

ment, for whatever purposes it be used, benefits co-existing cellular or circumuterine inflammation, frequently occurring, often occult; co-existing disease which is aggravated, or inflammation which is excited by the pessary or the intrauterine application, is benefitted and relieved by the dry cotton treatment. The good results of the treatment depend to a great extent on the good effects which these applications invariably exercise upon pelvic inflammations, recognized or not, which are invariably aggravated by the old routine treatment.

Materials used.—The materials used in this treatment are powders, more or less finely powdered or impalpable, according to the purpose, and fine vegetable and animal fibre, cotton, wool, and jute, plain and absorbent. As in all medication, a greater or less variety may be used; many are kept on hand, but the fancy or experience of the individual practitioner soon confines him to a few preparations upon which he relies. I will mention such as I have used in the order of their importance and the frequency with which I use them.

Powders.—Bismuth, iodoform, boracic acid, borax, alum, tannin, oxide of zinc, soda, and charcoal.

Cottons.—*a.* For mechanical purposes or as carriers: wool and plain cotton; less useful are jute, medicated gauze and wool absorbent with corrosive sublimate.

b. Cotton for medicinal purposes.

1. Antiseptic: borated, iodoform, salicylated, and carbolated.
2. Alterative: iodized.
3. Astringent: iron cotton (hemostatic) styptic (66 per cent), tannated ($7\frac{1}{2}$ per cent), alum (10 per cent), and alum (5 percent).

Instruments necessary are: a bivalve speculum and a Sims speculum; one or the other being preferable according to the position in which the tampons are to be placed. A long, strong dressing forceps, best with a catch; a tenaculum to steady the uterus whilst the tampon is being placed; a number of powder blowers for the proper distribution of the remedy..

The limited use which is as yet being made of powders in uterine treatment has caused little demand for such an instrument, hence only stray samples of the proper size and form are found even in the hands of our best instrument makers, and these are imported. The powder blower should be similar to

the one used for nose and throat, with a long straight tube, but a much larger magazine, the quantities used being greater in proportion.

The instrument which is still lacking is one by means of which powders can be applied to the endometrium. I have not yet seen one which would answer the purpose, and the best instrument makers, appreciating the difficulties in the way of successfully accomplishing the task, have not given me much hopes of attaining the desired device. Such as I have seen are too clumsy or too easily clogged. As I believe that powders properly distributed would, for many purposes, be the most efficacious application to the cavity, I should consider a serviceable instrument of this kind the stepping stone to a decided improvement in gynecological therapeutics.

POWDERS.

For most purposes the impalpable powder, as manufactured by Mallinckrodt, of St. Louis, or Wyeth, of Philadelphia, is preferable, adhering more closely to the surface, being more evenly distributed, and less liable to clog.

How the powders act.—The action of the powder is both mechanical and medicinal. We use in the main the powder for its medicinal effects, but in gynecological practice we derive so favorable an effect therefrom, on account of the secondary mechanical action which, in many cases, furthurs the end in view as much as the medical properties for which it is used; thus, whilst we use iodoform upon a raw surface as an antiseptic and stimulant, or tannin on the vaginal walls for the purpose of strengthening and contracting them, we at the same time cover and guard the irritated surface, and the iodoform or tannin, in addition to its specific action, has the effect, which any powder would have, of protecting and drying the surface, which is desirable in most cases in which we use any application, as most pelvic disorders are accompanied by hypersecretion of vaginal or uterine mucosa. The remarkable results attained by the dry treatment are due in a certain measure to the mechanical properties of powders as well as the cottons, as both serve to mitigate and to overcome a condition which is a frequent and annoying accompaniment of uterine disease, but which is usually overlooked, that is, the over-acidity of the vaginal secretion, and the less important, though by no means indifferent property of the

uterine secretion—an excessively alkaline condition. These irritating fluids are either absorbed by properly prepared cotton and rendered harmless, or absorbed, dried, and neutralized by the powder upon the surface of the mucous membrane, and I might say that the excellent results I have achieved from the use of subnitrate of bismuth, which I applied for a long time without knowing the precise reason for the admirable effects produced, are in the main due to its antiseptic qualities and the mechanical properties of the powder, which forms a protecting cover by coating the surface, dries the secretion, and destroys its virulence by neutralizing its excessively acid character. Bismuth is as important in the treatment of the uterine and vaginal mucosa as it is in the management of morbid conditions upon other mucous surfaces: in fact, I look upon bismuth as the most important of all applications; it is non-irritating, inoffensive, odorless, and yet almost equal as an antiseptic to the much-lauded iodoform: in all but unusual cases the tampon can be kept perfectly sweet for two or three days by dusting the parts with this powder.

The action of the powder is twofold in its nature: 1, direct upon the surface which is reached, and this is both *a*, mechanical and *b*, medicinal. Then we have, 2, the indirect, always medicinal, effect of the powder by absorption upon the surrounding tissue; so that the practitioner, if he uses his remedy judiciously, will obtain a variety of effects. The medicinal effects I need not speak of, as these are well-known and identical with the effects of similar remedies upon any other mucous membrane.

Alum is the astringent which I prefer, as it can be used pure if the surface is but lightly dusted with it; tannin, the sulphate of zinc and the oxide I do not use as freely, as these must be applied in a dilute form with bismuth or bicarbonate of soda; very small quantities suffice to abrade the surface if used pure.

Bismuth and iodoform I have found of most general use, by reason of the agreeable mechanical effect exercised by their presence upon the mucosa, in addition to the medicinal action of the drug. The dusting of the vaginal walls with the subnitrate of bismuth is a valuable addition to the treatment whatever it may be; its soothing influence is like that of the lycopodium powder in the intertrigo of infants, a protector,

desiccator, and antacid, but by far more efficacious, and in addition a potent antiseptic. Heretofore it has been the custom to make a violent application of iodine or nitrate of silver to the uterine cavity; careless practitioners have not even mopped the superabundance of fluid which gathers in the cul-de-sac, and the patient was sent to her home or about her business with the diseased surfaces, not cooled and protected, but heated, charred and irritated. In most chronic cases, the pelvic tissues are all more or less affected, so also the vaginal walls, and the friction of these abraded, sensitive, often hypersecreting or excessively acid, surfaces against one another serves as a decided irritant; whatever the benefit expected may be, the local irritation reflects upon the nervous condition of the patient, and thus the slumbering embers are fanned to a flame. Irritation, on the contrary, is allayed and the comfort of the patient increased by the dry treatment, by protecting these surfaces with iodoform or bismuth, in case of excessive acidity of the secretions bismuth being preferable, the tampon of absorbent cotton serves to separate the surfaces, to protect them against each other, and to keep them dry. Where disinfection is desired and the odor of the iodoform not borne, bismuth comes first in order, charcoal or borax may be used, which, next to iodoform and bismuth, is perhaps the most serviceable in the great mass of cases. Charcoal alone is an excellent antiseptic, sedative, and desiccator.

How used.—The powders should be distributed upon the surface to be medicated with the powder blower; as stated, the one I have been in the habit of using is similar to that used for larynx or nares, but with a larger magazine, holding from a half to one ounce; a number must, of course, be on hand, containing the various powders to be used. The receiver with compressed air serves a very excellent purpose if the powders are kept in bottles with proper attachments for such use; an insect powder blower is a very cheap and serviceable contrivance if the nozzle is somewhat lengthened. After resorting to such treatment or manipulation as the case may demand, the surface of cervix and vagina is dusted with powder and the tampon then inserted. As a preparatory measure, the parts must be thoroughly dried with absorbent cotton; the powder should then be dusted over the surface of the cervix and vaginal walls, such portions as may more particularly demand treatment being more thickly coated. The powder, of course, must be

used in quantities to meet the necessities of the case; bismuth, borax, soda, and charcoal may be very freely used; also iodoform: in rare cases only, if an idiosyncrasy exists, is an unpleasant constitutional effect visible, yet this is hardly to be taken into account, as I may say that only one marked case of toxic effect from iodoform so used has occurred in my practice, and that was an excessively nervous lady in whom I have observed striking idiosyncrasies in regard to other remedies as well: alum and tannin in the smallest quantities caused prostration and distressing itching, whilst carbolic acid, added in even the smallest quantities to the vaginal douche, caused the greatest physical and nervous prostration. Alum and tannin must be used with some care, best with bismuth, soda, or charcoal, and if pure, in moderate quantities only, a free use causing violent local effects: pain with excoriation of the surface. When used pure, only the surface to be affected should be delicately sprinkled. Salicylic acid, sulphate or oxide of zinc must be strictly confined to the surface to be affected, and only a very thin coating given. If a more diffuse effect is desired, it is best to mix them with an indifferent powder, such as bismuth, charcoal or corn starch, in the proportion of one to four. Borax may be freely used. Several powders can be used with advantage at the same time; for instance, if the cervix be lacerated or eroded, raw, the uterine discharge offensive, we may coat these parts freely with iodoform, using bismuth upon the vaginal walls if the secretions are profuse or acid; tannin or alum, if the parts are relaxed, flabby, and it is desirable to strengthen and contract. Thus several indications may be met in one and the same treatment.

The insufflator is the proper means for the administration of powders since we are aided in treatment by medicated cottons. Formerly I was in the habit of applying the powder within the tampon of cotton, which is an excellent method where the medicated preparation is not to be had, or where we desire to strengthen its effect; thus, if we desire an astringent effect upon the vaginal walls or pelvic tissues, we may take a knife-point full of alum or tannin and carry it in the centre of a small cotton tampon; as the secretions slowly saturate this, the powder is dissolved, and a gentle and continuous action is thus produced. • In this manner we can crudely supply the place of the medicated cotton, or utilize the tampon where such

is not to be had. It is an excellent method, as it guards the tissues from the direct effect of a strong remedy, and, what I deem so important in this practice, it causes a continuous action. In fact, such powders, which must be used with the greatest care when placed directly upon the surface, like salicylic acid or alum, are better applied in the centre of a small cotton tampon.

I would caution against the use of powders sprinkled upon the surface of the tampon, as advised by some. It is evident that by this method we can in no way gauge the quantity used or control its even and proper distribution, and, moreover, as it is introduced, surfaces which should be guarded from the effect, at least of sharp remedies, urethra or the mucous membrane of the vulva, may strip off some of the coating. It is neither cleanly, exact, nor safe.

Impalpable powders are very valuable in gynecological treatment; however, I look upon them in the main only as a part of, or an addition to, the more important tampon treatment. The mechanical effect is always a good one in serving to protect the parts and take up the secretions; it is equally valuable in neutralizing the injurious effect of excessively acid secretions, so common in the majority of pelvic troubles. The effect of this discharge upon the parts, indirectly upon the system, has been too long neglected, as not infrequently much of the prostration and nervous irritability of the patient is due directly to this cause.

THE TAMPON.

Method of action.—The most important feature of the treatment is the tampon which I use :

First, on account of its *medicinal* properties, as a carrier of the remedial agent ;

Second, mechanically as a *support* to hold in place the uterus or other of the pelvic viscera, and as a *compressor* for the edematous tissues and the dilated capillaries;

Third, as a *stimulant* or *alterative* to the tissues.

For whichever of these purposes it may be used, it serves, in addition, by its mere presence:

Fourth, to *splint* and steady the parts, *to give rest*;

Fifth, to *cleanse* and render them aseptic by absorbing the discharge, keeping the vaginal walls dry and clean;

Sixth, as a mechanical *protector*, keeping the tissues apart, preventing friction and irritation, as well as exposure to cold.

The first three objects are those for which the tampon is mainly used ; the others are advantages which follow of necessity this method of treatment. Even the third, an extremely important purpose served by the tampon, the alterative or stimulating effect upon the tissues, and for which alone I often use it, inevitably follows its application for either the purpose of medication or support, if judiciously applied. We know well that the tampon has long served gynecologists, but rather for other purposes of which I will not here speak, as they are comparatively of trifling importance. It has been used for the purpose of checking hemorrhage as a compressor, by packing the vagina, dangerous and hardly permissible in gynecological practice proper. It likewise has served to dilate the canal or to stretch contracting tissues, and hold in place intrauterine stems, pencils, or some vaginal dressing.

Medical purposes.—Medicinal agents are applied by means of the tampon, either by inclosing the remedy in the form of a powder within it, or by using a medicated cotton covering over the elastic body of the tampon, and of this alone I shall speak, as it is by far the most cleanly and satisfactory mode of treatment and an important feature of the dry method. Rarely is medication only desired, and the entire tampon of medicated cotton. I cannot sufficiently express my gratitude to Am Ende, the Hoboken chemist, whose fertile brain has furnished us with the useful preparations now in the market. There is no neater method of medicating tissues than the soft fibre of cotton, cleansed and impregnated with the remedy.

In resorting to this treatment, the practitioner is obliged to regard the various organs and tissues ; the uterine mucosa ceases to be the centre of attack—a small surface which has been plied with powerful remedies—and he is forced to a more rational method, that of treating the mass of surrounding tissue, which is almost invariably affected at the same time. The attention of the profession has too long been rivetted upon the uterus and especially the uterine mucosa, to the utter disregard of ovaries, tubes, ligaments, and cellular tissues, which are, I may safely say, of even greater importance, but not being within sight, not within direct reach of an instrument, their morbid states not at once made evident by a discharge, are easily overlooked ; yet I look upon each one of these as more important than the uterine mucosa, which, heretofore, has formed the centre of

attraction in gynecological therapeutics; the surgeon alone has passed beyond to a broader view. The discharge thrown off by the uterine mucosa, next to the displacement of the organ itself, was the most important evidence of disease, and all efforts centered in checking this discharge and replacing the organ regardless of cause.

By applying the remedy by means of the cotton tampon, all the pelvic tissues are reached, the muscular structures of the uterus as well as the mucosa: medication is general, as the disease usually is, and the treatment by far more rational than it has been heretofore when directed only to the lining membrane. When medication alone is called for, the entire tampon is made of the cotton prepared with the proper remedy, but as in most cases rest, pressure or support is needed equally, if not more, this is afforded by the elastic wool or cotton tampon, and the medicated cotton is brought in direct contact with the tissues as a covering of the elastic body, in a layer more or less thick, according to the necessities of the case. The effect of the remedy so applied, which is mild and continuous in its action, is twofold: direct upon the surface with which the tampon is in contact; and indirect, by absorption, upon the surrounding tissues. The kind and amount of material used in the tampon must be chosen accordingly; the kinds of cotton I use, of course, depend upon the object to be attained, the medical properties of the substances with which the cotton is impregnated being well known. Seven and a half per cent tannated cotton and five and ten per cent alum cotton serve as astringents: a thin film of iron cotton does excellent service for the same purpose. Upon an eroded cervix, if no other object is to be attained, a tampon of iodoform cotton makes an excellent dressing; if antiseptis is desired, salicylated cotton or cotton with corrosive sublimate answers well; a thin film of styptic cotton, with sixty-six per cent of iron, is admirable as an agent to check bleeding, whether external or internal, upon vaginal or cervical mucosa, or in the cavity itself. The excellent effects of such medication are perhaps best demonstrated by the iodized cotton, five per cent of iodine, as compared to the painting of the cervix or vaginal vault with the tincture. The latter is painful in its action, whilst the tampon of iodized cotton acts mildly and continuously. The medicated tampon being placed in contact with

the tissues to be reached, a second tampon serves to hold it in place, and to prevent the evaporation of the remedy which in this way is all absorbed, producing a much more lasting effect than the painting of the surface; in the latter the blistering effect of the tincture is prominent; in the former the effect of the iodine itself.

2. *Mechanical effect.*—In the mechanical effect of the tampon centres the value of the dry method. Whilst the medicated tampon is admirable for the application of remedies to the pelvic tissues, acting mildly and continuously, directly upon some, by absorption upon all, it is most important as a support to the displaced uterus, holding it in place without causing irritation, and removing the strain from the diseased ligaments. Too often the disease of the uterus or its mucosa is only secondary, the result of displacement due to morbid conditions of the bladder or bowel, and in many instances to the contraction of diseased ligaments or to low forms of cellular inflammation, and by replacing the uterus by the tampon, or at least approximating its normal position and holding it there, we at once relieve the more distressing symptoms and attack the causative morbid conditions; the circulation in all the pelvic tissues is improved, hence the venous congestion which mostly accompanies these chronic inflammations is diminished, and, as a normal position is approximated, the strain upon the ligaments and vaginal walls is lessened and opportunity afforded the tissues to recover. The cotton tampon affords an excellent support to the displaced ovary, which would never bear the pressure of a pessary.

The pressure of the elastic wool, jute, or non-absorbent cotton tampon is borne by even the most sensitive tissues; but in these cases, as in fact in all, the tampon must not be firm, the very quality which is looked upon by some as important; this should always be avoided. Whilst the pessary only serves to retain the uterus in place by pressure upon a limited space, stretching and often irritating the tissues, rarely assisting contraction and restoration, the tampon is curative and will accomplish this. It is a great mistake to make the tampon supporting by reason of its size, thus distending the tissues and holding them for the time being only, whilst the prop is in place. The supporting tampon should be indeed a direct support like a pessary, but like a pessary well placed, not supporting by its mass, but by a judicious insertion, by leverage. The supporting tampon so

used is directly curative, as the mechanical action is assisted by the medicinal agent with which it is impregnated. Whilst the circulation is improved by rectification of the dislodged viscera, the enlargement diminished, the strain taken off, healthy action is furthered by the astringent effect of the remedy used. The vaginal tissues are not stretched, but relaxed and approximated to their normal position, and one of the most important objects accomplished is the stimulation, the improvement in the tone of the tissues, especially the ligaments and vaginal walls.

For the purpose of support, the tampon should be elastic and of such form and size, so placed, as not to distend the tissues; the material must be such as to retain this elasticity as far as possible, hence the absorbent cottons, and the medicated cottons alone, are not serviceable, the best material is wool, jute, oakum, or simple cotton. I have used the ordinary cotton wadding a great deal, but am now relying equally upon wool, which is more elastic and less absorbent. Absorbent or medicated cotton is not serviceable, as it is soon impregnated with the discharge, and yielding to the weight of the superimposed organ, is compressed into a small doughy wad which irritates and gives no support; hence I would caution against the use of absorbent cotton as a supporting tampon, though it is becoming quite popular with the gynecologist who endeavors to treat his patient well, and uses the fine, soft, absorbent cotton in place of the ordinary wadding for the tampon. With the best intention, he renders her a very poor service.

The best qualities of ordinary cotton batting are even preferable to wool for general use, as the fibre is better borne by the mass of patients; it does not heat as much, and seems somewhat less liable to irritate.

The glycerin tampon likewise should never be used as a supporting tampon, it being a heavy, matting mass which can only hold the organ in place by sheer force of quantity and distention of the parts.

In virgins especially, the elastic, medicated tampon is the proper agent for the correction of displacements, a normal relation of the parts being attained, not only without distention, but by an improvement in strength and circulation which is very beneficial.

Well-prepared sheep's wool, fine, white, and clean, makes the

best supporting tampon, and as this can be had in a very perfect shape, it is not always necessary to coat the tampon with a layer of fine carbolated absorbent cotton; the most sensitive hardly experience irritation from the wool, which can be had in the market even finer than the absorbent corrosive sublimate wool made by a Boston firm for medical purposes. In the supporting tampon we do not wish any absorbent properties, and the antiseptic is furnished by the powder used, hence for the supporting tampon the absorbent wool is inferior; it is the fat in the animal fibre which prevents absorption and aids in retaining the elasticity which makes the pure wool tampon superior to all others for supporting purposes.

If jute or oakum is used, which is rough and irritating, annoying and injurious in most cases, the supporting tampon must be covered with a good coating of absorbent or medicated cotton, according to the effect desired. Jute alone excites inflammation and discharge.

The use of carbolated or iodoform gauze, which is recommended by some, must be confined altogether to tampons used for surgical purposes—for the dressing of wounds, for instance.

The great advantage of the supporting tampon lies in the fact that it is curative; that it not only may, but it must be used in the most sensitive and inflamed condition of the parts; that it not only improves the position of the parts, but reduces the inflammatory condition in such cases where the persistent use of the pessary has increased or created inflammation. It is most decidedly curative, as it combines, with the mechanical property of a support, a medicinal effect by the remedial agent it carries, by pressure checks the superficial congestion and mechanically exercises an alterative effect upon the tissues with which it is in contact; whilst the pessary, at best, is only borne, and prone to irritate and inflame by contact. Many, I might almost say the majority, of pelvic troubles which come under treatment have been caused by, or are combined with, displacement of the uterus or ovaries, relaxation or contraction of the ligaments and vaginal walls, and much of the suffering and nervous irritation, and many reflex neuroses, are dependent upon such mechanical displacements of the viscera. The tampon as a support, in rectifying at least to some extent such displacements, at once affords relief, the relief continuing whilst it remains in place.

The remedies used, the medicines applied, in this method of treatment in the form of the medicated tampon, at the same time serve to improve the relative position of the parts. It is the friction of the eroded and everted lips of the lacerated cervix against the posterior vaginal wall which causes the annoying backache in the heavy subinvolted uterus which lies low in the pelvis. Even the small tampon properly placed, bringing the cervix more into the vaginal axis, at once relieves those distressing symptoms. Thus the fundus or the cervix, pressing against bladder or urethra, can with ease be replaced, at least sufficiently to relieve the distressing symptoms caused. Much is gained if the more annoying symptoms are at once eased; the intense nervous strain is removed from the patient and an opportunity afforded her to rally her wasted energies, to gain strength; medication and reposition can then progress more satisfactorily with continued treatment.

In by far the greater number of those cases in which treatment is necessary for malposition of the uterus, the displacement is backward, the most favorable for the tampon treatment, as it is indeed for the pessary. The tampon can always be used, whilst the indications for the pessary are limited; it is especially in inflammatory conditions of the retro-uterine cellular tissue or posterior folds of the peritoneum, and in injury to these parts, that the advantages of the tampon are evident; by this alone can the position of the parts be improved, and the sensitive retro-uterine tissues and ligaments do not resent the soft cotton tampon. 1st. The medicinal agent is carried precisely to the point where it is most needed. 2d. The normal position of the parts is approximated; the circulation is improved; venous congestion reduced; and 3d. Sufficient pressure is exerted upon the parts to produce the stimulating or alterative effect which is desired.

3. *Stimulating and alterative effect.*—Mechanically the tampon may be used to exercise a stimulating or alterative effect upon the tissues with which it is in contact; to strengthen, harden, or soften, as the indications may be. This, with medication and support, is one of the most important uses of the tampon, but I rarely employ it for this purpose alone, almost invariably I combine with it medication or support, generally both.

The action of the tampon so used is to the pelvic tissues what the elastic bandage is to external parts, by the pressure

of its mass upon the tissues, first, the doughy, edematous thickening is diminished and healthy action promoted; second, venous congestion is overcome by compression of the vessels and capillaries; third, active changes are inaugurated and hyperplasia is reduced. The importance of pressure as a means of overcoming these conditions is evident, and repeated efforts have been made to utilize this valuable agent, prominent among which is the clay pessary of Pallen and the more reasonable cotton wool packing of Taliaferro. I can well indorse both Dr. Pallen, who lays great stress upon the utero-vaginal rest that is secured—which he deems all-important in the treatment of obstinate displacements, especially if complicated with acute cellulitis and edema of the pelvic organs—and Dr. Taliaferro, who claims that the pressure diminishes, first, the blood supply; second, increases absorption; third, that it destroys hyperplastic tissues by retrograde metamorphosis; fourth, diminishes nerve activity; fifth and finally, that it rectifies displacements. Excellent results have been accomplished by these methods, in which the packing is used for purposes of pressure only, but this is most unnecessary and a simple waste of time and material; properly utilized, the packing can do more and will even accomplish the object mainly desired to better advantage, if applied so as to combine with pressure medication and support.

The dry tampon treatment affords these advantages in a degree in every case; a certain stimulating and alterative action is always exerted. The tampon, medicinal or supporting, is never crowded so as to distend the vagina, hence does not compress the tissues so thoroughly, and it is packed only around the parts affected, to be held in position or medicated; as a rule, only around the cervix, in the cul-de-sac and upper part of the vagina; the alterative effect is hence less marked than in a packing such as that of Taliaferro, but constant and equally certain. I look upon the stimulating, alterative effect, to a certain extent a natural sequence to the treatment, as a most desirable result and as almost equal in importance to that of medication or support although the action of the tampon as generally used in the dry treatment, and not especially applied for alterative purposes, is not so decided, it is sufficient in most cases; as it is continued and combined with other effects, the object in view, the end desired is attained even more readily.

I look upon the alterative properties of the tampon as one of

the strong points of the dry treatment, because the great mass of cases, at least the more troublesome and difficult ones in gynecological practice, are chronic, accompanied by venous congestion, hyperplasia, thickening of the tissues, often of an edematous character. In all of these a beneficial effect is exerted by the pressure of the tampon, whatever the purpose for which it is used may be. Moreover, cellulitis, in one form or another, is a frequent condition, and the indurated or thickened doughy tissues of the utero-vaginal tract resulting from passive hyperemia, caused by constriction or compression of vessels and tissues, need precisely such pressure as is exerted by the elastic cotton tampon used in the treatment.

Other purposes are accomplished by the tampon, but although they are rarely of sufficient importance to afford, in themselves, indication for its use, they always result in a greater or less degree in accordance with the nature, number, and placing of the tampons.

4. *Rest giving*, as an intra-pelvic splint. Tampons as used in the Dry Treatment prevent the wobbling about of the heavy, enlarged, or displaced parts, and serve as a splint to the diseased tissues, reducing their movements to a minimum. They thus serve to steady, to splint the pelvic viscera, and give them rest. The treatment itself necessitates what the orders of the physician often fail to attain, what the patient may not be able to give—rest, which is as needful to a diseased uterus or ovary as to a broken arm or a recently united wound. The tampon affords that rest which I look upon as one of the most important elements in the treatment of uterine disease.

5. *Cleansing*.—The tampon itself, like the dry bismuth powder, furthers cleanliness by absorbing the secretions, and when rendered aseptic by impregnation with corrosive sublimate, salicylic acid or similar preparations, it prevents fermentation and disintegration of fluids and thus does much to further healthy conditions, irritation and inflammation being frequently kept up and aggravated by such discharges; like the dry powder, it thus relieves many of the distressing symptoms occasioned by excessive acidity of the vaginal discharge. The parts are kept dry, clean, aseptic; the tissues are surrounded by healthy conditions and healthy action is thus furthered.

6. *As a protector*.—Whatever object the tampon may be intended to serve, it will protect the parts against irritation by

friction and pressure from adjacent organs, and what is equally important, from the effects of cold, from changes of temperature. The friction of sensitive, congested, or displaced parts against each other is prevented and great relief thus afforded. The insertion of the tampon for purposes of medication or support at once removes the inflamed or eroded cervix from the vaginal wall against which it grated at every step, with every movement of the body, a constant source of suffering and irritation ; the tampon is interposed, holds the parts in their proper position, and prevents friction. To a certain extent the parts are protected against insult from without as well—this treatment prevents coition and forces the patient to afford herself the much-needed rest in a matter upon which the physician may dislike to speak, and in which his directions are most likely to be disobeyed. In this respect the tampon renders a most excellent service, as the congestion accompanying coition and the mechanical injury caused thereby do much to keep up existing irritation, and to excite or aggravate inflammation, and often cause most intense suffering. Only in extreme cases does the physician, as a rule, interfere, whilst in all abstinence does much to promote the restoration of health. The dry treatment enforces abstinence without the necessity of discussing this delicate topic. The tampon in the vagina, like the cotton wad in the ear, is a good protector against cold, although at the present day, in this era of modern conveniences, one of the most fruitful causes of injury has been removed with the introduction of the water closet ; the poorer classes and country women all still resort to the privy, where vulva and vaginal tract are directly exposed to the cold, often to perfect blasts. The mere exposure of these parts to such drafts as often exist in privies is injurious, above all when rendered sensitive by pre-existing inflammation, and in multiparæ with relaxed vaginal walls, and ruptured perineum, the pelvic viscera are directly exposed to the cold draughts from below, as the vagina is then an open canal. Ladies better situated are not so much endangered from this source, but from the very nature of their dress are more or less exposed to cold. The tampon as used in the Dry Treatment protects the vagina and internal parts.

7. *As a supporter for instruments and appliances.*—In the dry treatment we use one tampon, at times, to fix and hold in

place another ; or use it for the retention of a medicated pencil *in the uterine cavity*.

HOW THE TAMPON IS USED.—As the Dry Treatment is not only non-irritating, but at once affords the patient immediate relief from the more annoying symptoms and gives her support, it may be applied in the office just as well as at the home of the patient. For one purpose or another I use the tampon in *all* cases. To obtain the best possible results, its use must be almost continuous, hence the treatment should be repeated every second or third day : after the treatment—the placing of the tampon—the patient should lie down for half an hour in such position as is indicated by the existing morbid conditions ; in a case of retroversion, where the tampon is placed behind the cervix, underneath the fundus, the position should be lateral, semi-prone, so as to remove the pressure of the intestines and allow the uterus to fall well forward, the tampon to settle itself firmly in the posterior cul-de-sac in the hollow of the sacrum, and the viscera to accommodate themselves accordingly. If this is done the effect of the tampon is more certain, the parts more liable to retain the position given them by the physician. But before the patient leaves the office, she must be told of the fact that the tampons have been placed, how many, and how long they are to remain, when she is to remove them, and the precautions which are necessary for such removal. She must be told to lie down immediately after treatment, before going home, how long, and in what position ; she must also be directed as to the position she is to take in bed at night. Should iron cotton be used in treatment, the patient must be advised of the possible discolorization of the discharge and the staining of clothing, against which she may guard by the wearing of a cloth. If the tampons begin to give discomfort, the patient must be instructed to make an effort to push them upward with the finger, and to assume the proper recumbent position for a time, when the previous position of parts and tampons may again be attained, but if the tampons have become displaced and cannot be returned so as to give comfort, they should be at once removed, as irritation will be caused by the cotton when low in the pelvis where it presses upon urethra and rectum. The patient must also be cautioned against the possibility of displacement of the dressing during a movement of the bowels, after which the same attempt at reposition must be made. She should always be instructed to

remove the tampon if it causes pain or even discomfort, as a *well-placed, effective tampon will never inconvenience*. It is immaterial whether the tampons are placed in the morning or evening of one day ; they can always remain at least until the evening of the next day, and remain perfectly sweet, as the treatment is aseptic or antiseptic, and antiseptics are always used on one or the other of the tampons inserted. The tampons, if important for purposes of support, should be left in until within a few hours of the following treatment ; but when the vaginal douche forms an important element in the treatment, they are removed upon the evening of the day following their insertion, so that the douche may be used upon the evening after their removal, and again upon the following morning. If support is the important factor, they are not removed until the following morning or afternoon, only a few hours before the repetition of treatment, or even retained until removed by the physician himself before treatment. The patient should be as short a time as possible without them. I leave them in as long as possible to afford support, or to permit the effect of medication to continue as long as possible. Any exertion the patient must undergo should always be undertaken while she has the benefit of the support afforded by the tampon. After it has been removed, before the re-insertion at the next treatment, she must keep quiet, rest in the proper recumbent posture.

In my clinic at the Post-Graduate School, the hours of treatment are from 10 to 12, and as a rule the tampons are left in place until the following evening ; in cases where support is very important, until the day thereafter, for forty-eight hours, when they still remain free from any odor, although somewhat matted and with a doughy surface from the discharge absorbed. The abundance of antiseptics used in the treatment, either in the powder or the substance of one or other of the tampons, preserves them perfectly for two days. In private practice I utilize the afternoon hours, and there tampons are as a rule allowed to remain for thirty-six hours, from the afternoon of one day until the evening of the next. Where it is not possible for the patient to receive treatment as often as necessary, she can be instructed to place tampons, medicated or carrying dry powder, upon the morning of each day, so that a certain support is afforded while she is on her feet ; although the same object is not accomplished as when placed by the physician, I have found very good results where a

simple support was necessary, and even in cases somewhat more intricate, I have found that ladies become adept in the use of the tampon as they do in the dressing of some chronic sore, which they have long practised upon themselves. The relief afforded by tampons varies so much with the method of placing them, that they soon find out by experience where the tampons must be placed, how large they must be, and how many must be used. When the patient places the tampon herself, she must, of course, use them small, elongated, as they are more readily inserted. She must be carefully instructed how to make and how to insert them; they are to be inserted in the knee-elbow position if they cannot be managed in the dorsal decubitus, and carefully pressed against the posterior vaginal wall, forcing the perineum back, and then brought backward and upward, the first behind the cervix, and then upward against the fundus, the next following it as close as possible. Patients who cannot learn to manipulate the tampon may use the vaginal gelatin capsule, putting the powder for medication into the capsule upon the tampon; these are more handy, but much less efficacious, as they cannot be so accurately adapted. I have frequently seen great improvement in such patients after returning from a summer vacation, or a few weeks' absence, during which time they have not only afforded themselves relief and comfort, but have even improved their condition by the continued use of properly placed tampons during the daytime, and by the douche in the evening and morning.

We must begin cautiously with the dry treatment as with all others, idiosyncrasies may exist; powders or cottons may not be borne, and in almost all cases, certainly in sensitive patients, repeated treatment is necessary before the parts become thoroughly accustomed and adapted to the tampon, and improvement is felt. If we desire at once to attain the full effect, more or less irritation will be produced; hence the first treatment must be mild both in regard to medication and mechanical effect. We must not seek to fully replace and hold the displaced uterus at once, but we must be satisfied with some little change for the better; small tampons mildly medicated. In nervous patients with sensitive organs, in cases of cellulitis and metritis, treatment should be inaugurated with all possible precautions; I have sometimes used cocaine to cervix and cul-de-sac. I generally use bismuth or iodoform with small borated tampons;

should the tampon cause irritation, let the patient remove it if it becomes annoying, even before the expiration of thirty-six hours; gradually the parts, by pressure and medication, grow less sensitive, a slight amelioration of the condition takes place, and the treatment is borne without discomfort; ere long the improvement becomes marked, increasing day by day. In rare instances, I have seen a few weeks thus consumed. In many cases, a little discomfort is felt during the first two or three treatments, but this is only in the more sensitive; in most the improvement becomes apparent at once and is sensibly felt by the patient after the second treatment. If the tampon annoys, it is better that it be removed, it may be mere hypersensitiveness of the parts, the tampon may not be properly placed, as it is not a simple matter and it is sometimes after repeated trials only that the proper number, size, and position of the tampons is obtained. This is another advantage over the pessary, the possibility of a *gradual* return to the normal condition. The first tampons may annoy somewhat even when properly placed, because the parts, having become adapted to their malposition, forced upon them by morbid conditions, are disturbed in their relation, and only by degrees again accommodate themselves to the normal, hence we must proceed slowly, and under no circumstance should pain be caused.

What the tampon is.—The tampon, as I use it, is perhaps the simplest of all the numerous forms of tampons which have been recommended, and I would here say that many of them should be carefully avoided; no peculiar shape or manner of wrapping is recommended. To be serviceable, easily placed, and well retained, the tampon must not be large; it must not be hard or too compressible. The tampon should be oval, from two and one-half to three inches in length, from one to one and a quarter in diameter. It should neither be flat nor conical, or a hard mass of rolled cotton; nor should it possess that firmness which is lauded by some for their particular tampons. The cotton or wool of which the tampon is made should be loosely picked, then taking a bunch perhaps the size of an egg, a string seven inches in length should be taken, one end of which is tied around the tampon sufficiently tight for it to become imbedded in the fibre of the cotton and nowhere visible. It must not be tied too tight lest the elasticity of the tampon be impaired, yet it must be sufficiently firm to hold firmly and be imbedded, that the string

itself is nowhere exposed so as to come in contact with the vaginal tissue. One end is cut short, the other, five inches in length, is left pendent to secure the tampon. The string should not be coarse, it should not be colored, lest the perspiration or secretions become tinted and stain the clothing; the string must be soft, as irritation is readily caused in tissues so sensitive as the mucocutaneous borders by the friction of a coarse cord, and in very sensitive patients, even a soft string is liable to cause irritation. The pendent portion should not be more than five or six inches in length; long enough to protrude from the vagina, yet not so long that it becomes entangled in the clothing and liable to be disturbed and dragged down; still it must be long enough to avoid the danger of its being drawn up into the vagina so that the patient herself is unable to remove the tampons.

The largest tampons I use are three inches in length by one and a quarter in diameter; the smallest about two and a half inches in length by one in diameter, the fibres are packed so as to give the tampon sufficient firmness and still preserve their elasticity; it must not be a hard incompressible mass, though firm, elastic, the peripheral fibres quite loose. As the elastic fibre of wool or jute is often too harsh to come in contact with the tissues, yet on account of its elasticity desirable for support, I use this material for the body of the tampon and then cover it with a thin layer of medicated or antiseptic cotton, using for supporting tampons the more harsh but elastic fibre for the body of the tampon; the soft medicated substance for the covering. The smallest size tampon should always be used for an elastic body over which the covering is placed, so that the tampon when completed may not be too large.

Placing of the tampon.—As a rule, I use the bivalve speculum with the patient in the dorsal decubitus. For certain purposes, for the correction of a retroversion, the semi-prone position and Sims' speculum is preferable: in extreme cases even the genu-pectoral position, so that gravity, traction of the intestines, pressure of air, all add to further reposition of the organ before the tampon is inserted. After such treatment as the case may demand, to the endometrium, by fluid, powder or pencil, or the use of the electric current, all secretions are removed, the vagina is thoroughly dried with absorbent cotton, the cul-de-sac and cervix coated with the remedy desirable in powder form, the tampon is seized with a long broad-bladed

dressing forceps, which grasps it about the centre, and the part to be sustained is pressed gently towards its natural position by the tampon. Frequently it is desirable to raise the vaginal vault, especially the cervix, so as to admit of proper placing of the tampon ; in retroflexion or anteversion, for instance, where the cervix points backward to the hollow of the sacrum, the posterior lip must be seized with the tenaculum and raised upwards sufficiently to admit the tampon to be lodged behind it. When once in the proper position, the forceps are removed and whilst the cervix, or other part in the way, is fixed by the tenaculum, the tampon is pressed in place by the dressing forceps, the ends of which are separated about half an inch so as to afford a better surface for pressure. In inserting the tampon, we must always be careful to grasp it so that the string remains pendent, hanging out of the vagina ; if the end should slip back into the vagina, it is seized with the dressing forceps after the tampon is placed and brought well out. In the placing of second and third tampons, it is well to make traction on the strings of those previously inserted, so that they may not be pushed upwards and lost. According to the object desired, the following tampons are placed and pushed upwards against those preceding, more or less firmly where support or medication is desired, so that the entire mass of tampons represent one elastic body. Under no circumstances must the tissues, especially the vaginal walls, be distended (except for compression and in the packing of the vagina post partum for hemostatic purposes). The tampon should find its main support in the hollow of the sacrum and upon the floor of the pelvis, but never low down toward the vaginal orifice, where either rectal or urethral passage will be compressed or irritated. The proper placing of the tampon with Sims' speculum is somewhat difficult, as the natural relation of the parts is greatly disturbed, the vagina distended, and the placing of all but the first tampon rendered extremely difficult, unless very light traction is made upon the speculum and the blade gradually withdrawn as the lower tampons are placed. In the treatment with the bivalve speculum, it is likewise often well to withdraw the instrument as the lower tampons are being placed, if such are called for. When the tampons are well in place, they are firmly fixed by the slightly distended blades of the dressing forceps, with which firm pressure is made against the lowest tampon whilst the speculum is withdrawn. After

the tampon is placed, the patient takes a few steps to test the effect, whether relief of pain is given, then she lies down for a quarter or half an hour in such position as insures the retaining of the tampons and pelvic viscera in the position given them by the practitioner. Before leaving the office, she must be given to understand the nature of the treatment, the presence of the cotton balls, with full directions for her guidance; that she is to do her work or undergo such exertions as are necessary whilst the tampons are in place; that they are not to be removed, unless causing irritation, until the evening of the day following, before going to bed or just before coming again for treatment. The removal must be accomplished with some precaution; unless this is taken, the string may tear and the tampon remain incarcerated; or by a rude removal the parts, which have just been a little bettered in position, will be dragged down with the tampon and pain and even injury caused. Supporting tampons are often made of astringent material or coated with such, and even when medicated tampons are used the lower one is generally astringent, so that the vaginal walls are contracted and the tampon is more firmly fixed, hence it is well that they be moistened with a little warm water, or a quantity of vaseline be inserted so as to lubricate the parts before removal, then the string is seized as near the tampon as possible, to make traction more steady and less liable to break the string, and by slow and steady traction in the direction of the pelvic axis, as in the use of the forceps, she draws out the tampon. Generally the two or three tampons used, soaked with the discharge, have become united, agglutinated, and are drawn out as one mass, though traction be made upon but one string. In cases where special care is necessary, the string of the lower tampon is marked by tying a single knot in it, the second by tying two knots in it and so on, and the patient is instructed accordingly, so that she may draw out the lower one first, which makes extraction much easier and less liable to draw down the parts, as will happen when a number of astringent tampons are drawn out together which drags down the parts, gives considerable pain until the patient lies down for a while in the proper position so that the parts may somewhat resume their natural posture, and then uses the hot douche.

The patient must also be told that even should she not be able to remove one or two of the tampons, no harm is done;

otherwise she may cause herself great annoyance and discomfort, and much nervous irritation by futile attempts at removing them if the string should happen to slip into the vaginal canal. Yet I frequently find patients who have been under treatment for some time, who have learned to remove the tampons without trouble, even if the string has escaped, by hooking the finger over the body of the tampon and so bringing it down. A tampon left in place by the patient is very easily removed by the physician when she next comes for treatment, either by the finger alone or by the forceps through the speculum. If by the hand alone, the tip of the index finger, or index and middle fingers, inserted into the vagina, is placed above the centre of the tampon if it cannot be hooked over it, and it is then pressed down into the hollow of the sacrum as we do the placenta, and by simple pressure downwards and forwards, forcing the mass against the inclined plane of the sacrum, the tampon is readily delivered. The physician must not attempt to seize it with his fingers any more than he would a placenta, but he must deliver it by pressing it downwards against the sacral plane.

THE USE OF THE TAMPON FOR SPECIAL PURPOSES.

The material, and to some extent the size, not the shape of the tampon, varies with the purposes it is to serve; the oblong tampon, adapted to all cases, is small compared with the size of tampons generally used; the largest should be three inches in length by one and a half in diameter, the smallest two inches in length by three-quarters of an inch in diameter, averaging two and one-half inches in length by one and one-quarter in diameter. Even in simple cases, I prefer to use a number of small tampons, as they are more readily adapted and more precisely fitted; I never use a large tampon, which is an unwieldy, clumsy, and useless, if not dangerous, application, extremely crude. In some few cases, perhaps a single large, oblong tampon would answer as well where it is simply desirable to support an enlarged uterus, somewhat low in the pelvis, or to strengthen relaxed ligaments, or to medicate in a simple case; but, as a rule, it will be found far better and more convenient to use several small tampons, each of which may perhaps serve a particular purpose, yet acting together, combine to further the end in view as one, by pressure, support, and medication. Tampons in the Dry Treatment generally serve a variety of purposes, and one and the same

tampon is often so used; but, for whatever purpose used, we must always bear in mind that they must not form a mass sufficient to distend the vagina, and that they must find a support upon the posterior vaginal wall, the lowest portion against the perineal body, and must not protrude into the vulva, where they would irritate and annoy by compression of rectal and urethral orifices; the pelvic floor is the point of support, and the perineum is almost as necessary for the retention and proper placing of the tampon as it is for the pessary.

1. *The medicinal tampon.*—The tampon for *purely medicinal* purposes should be of medium size and of such cotton as answers the particular purpose; in case of a light catarrhal inflammation, alum or tannated cotton, seven and a half per cent, may be used, and two tampons of this cotton inserted; if the astringent effect of the iron cotton (perchloride of iron, ten per cent) is desired, a thin layer only must be used, taking a small tampon of wool, jute, or cotton with an antiseptic, as a body around which a thin layer of iron cotton is placed. The same is true of iodized cotton; in cases of chronic cellulitis or metritis, in which we wish the iodine effect, we do not use the solid tampon of iodized cotton, unless the blistering effect is desired, but take a small body tampon of antiseptic cotton or jute, around which a layer of iodized cotton is placed, more or less heavy according to the effect desired; a more effective iodine tampon is one in which the body is made of iodized cotton, and this is surrounded by a heavy layer of plain absorbent cotton, sufficient to prevent contact with the mucous membrane, yet admitting of the slow penetration of the volatile iodine. Such a five-per-cent iodine tampon, when removed on the second day, comes out perfectly white, proving the complete absorption of the remedy. The quantity of medicated cotton to be used depends upon its strength, the condition of the mucous membrane, and the purpose for which it be used. Where we wish but a light iodine effect, non-irritating, not blistering, we must use a small mass of iodized cotton in the centre of the tampon. Likewise in very sensitive subjects; in such, a layer of iodized cotton, not thicker than the back of a knife blade, surrounding the tampon, may produce a burning which continues whilst the tampon is kept in place. To avoid these possibilities, it is better always to use the iodized cotton as body in the centre of the tampon. We must bear in mind that one of the great advantages of this treatment

is in the comfort it gives and its continued effect; hence we should not resort to strong remedies and irritating methods of application, unless a special purpose is in view; we must be careful as to the quantity of the iron used. Borated cotton, fifteen per cent; tannated cotton, seven and one-half per cent, may form the body of the tampon, but iodized cotton, even five per cent, must never, unless a blistering effect is desired, be used for the entire mass of the tampon; ten per cent alum cotton is even too severe for some to be used in quantity; the milder of the iron cottons made by Am Ende, hemostatic ten per cent, used too freely excoriates and affects the surface precisely as a solution of perchloride of iron would; of such cotton, I take a thin layer, three inches square, and surround with this the small tampon which serves as a body. Unless a secondary purpose is in view, an antiseptic material should always serve as the body. In rare cases where a powerful effect is desired upon a small surface, as upon the bleeding and everted lips of a lacerated cervix, the styptic cotton, sixty-six per cent of perchloride of iron, is used, the part to be affected is covered with a thin layer which is held in place by an astringent tampon of alum or tannin; if a more general effect is desired, a number of tampons, consisting of a mild medicated cotton, are inserted. Where the effect is to be localized, as upon the cervix or the vaginal vault, this one medicated tampon is held in place by a second which consists of wool or cotton coated with an astringent as we shall hereafter see. Tampons of medicated gauze may be used for purely medicinal purposes, and are especially useful for purposes of vaginal dressing after surgical operations. Strips of this material may even be used in the uterine cavity, both for drainage and medication.

2. *The supporting tampon.*—The tampon for support consists of elastic non-absorbent material, hence best of wool, jute, or oakum, that is preferable which can be impregnated with antiseptic preparations. There is more or less discharge, either from the vaginal or uterine glands in cases which come under treatment, hence an elastic non-absorbing fibre should be used for purposes of support. In its elasticity lies the advantage of the tampon for such purposes. The sensitive and inflamed uterus, the irritable, diseased ovary, or the vaginal walls, are best supported and held in place by an elastic mass, and there is nothing better than wool for this purpose, after this jute, oakum, or cot-

ton. It should, of course, be aseptic, if not antiseptic. Of late, gynecologists have fallen into a serious error by using absorbent cotton for such purposes, with the best intentions, thinking to give their patients the benefit of this most elegant and agreeable preparation, that have rendered them a bad service; the absorbent cotton soon becomes impregnated with the discharge and forms a small, hard wad and patients tell me that, whilst the tampon gave comfort for half an hour, it then felt uncomfortable, causing irritation like a foreign body. The absorbent cotton so matted and solidified and greatly reduced in size forms a support very little suitable for a diseased organ; ordinary cotton is far preferable, because it resists much longer. Fine sheep's wool is best; it is elastic, soft, but not antiseptic, hence, if we use it, it must be impregnated with borax or iodoform. The same is true of ordinary cotton which makes a fair supporting tampon, though not as good as the more elastic fibre of wool which I use almost altogether. The fibres of jute or oakum when used for a supporting tampon must be picked and loosened, so as to form a soft elastic body; but as this is too irritating for the tissues, the tampon so formed is coated with a thin layer of a finer fibre, with a medicated or antiseptic cotton. Unless special indications exist, it is well to coat the elastic body of the supporting tampon with a thin layer of a light astringent cotton, which serves to contract the vaginal walls and hold the tampon firmly in place. When it is desired to apply a certain remedy to the tissues, the elastic body of the tampon is coated with the medicated cotton to be used; thus where an astringent effect is desired, a thin layer of tannated cotton serves to soften and at the same time medicate; iodized, iron, borated cotton, may be so used. In holding in place the body of an enlarged uterus, held down by ligaments tense and thickened by chronic inflammations, the supporting tampon is coated with a thin layer of iodized cotton, thus attaining the desired medicinal effect whilst proper support is given.

The tampon for supporting purposes must be placed with as much care as a pessary; if not, it will either not answer the purpose or even give discomfort and do injury. The first tampon may be used to push the part it is to support in place. As it is caught upon the end of the dressing forceps in the right hand, the tenaculum held in the left hand is often useful in opening a path by holding aside such tissues as may obstruct. Thus in case of

a retroflexion where the cervix presses upon the posterior vaginal wall, this is held up by the tenaculum which grasps the lower lip, whilst the tampon is forced against the fundus, pressing this upwards. Each successive tampon must be placed so as to afford the best possible position for the tissues, approximating the normal. When all have been placed, the tampons form a mass which rests upon the posterior vaginal wall and the upper portion of the perineal body, not sufficiently low to approach the vaginal orifice. Immediate relief is gained, friction is prevented, the normal relation of the parts is approximated, the circulation rendered more free, and absorption thus furthered.

In case of anteflexion, a small tampon is placed behind the cervix in order to afford a fulcrum for the pressure exercised by the second placed in the anterior vaginal vault against the fundus, and a third, sometimes a fourth, larger one which holds them both in place. A single large tampon never answers the purpose, as it cannot be so accurately fitted. The supporting tampon, when used for the ovary or the uterine fundus only, must itself be held in place by others which rest upon parts more fixed; these should consist of an elastic body coated with a light astringent.

For most purposes, the dorsal decubitus with a bivalve speculum is preferable, because we see before us the normal relation and condition of the parts. In case of retro-displacement of a non-adherent, freely movable uterus, the semi-prone or genu-pectoral position is preferable because the organs may then be thoroughly anteflexed or anteverted before inserting the tampons. Much judgment is necessary, however, in so placing the tampons, and care must be taken to distend the vagina as little as possible with the speculum, as it is almost impossible to find, in this altered and unnatural position of the parts, the proper resting place for the secondary supporting tampons, and it is by no means intended to attain reposition and support by distention; the greatest judgment, however, is necessary to determine the plane of the pelvis to which the organ should be raised, the extent of the effort at reposition to be made at each application. If adhesions exist or the circum-uterine tissues are rigid by induration, injury is done, pain is caused, and inflammation excited by forcing the parts, by attempting perfect restoration, or by aggravating the malposition by improperly placed tampons. For individual cases it is impossible to pre-

scribe: I can only say that the tampon should never support by distention; that it must act more like the properly placed pessary, by leverage; it must neither cause undue tension, nor discomfort, but should, on the contrary, give relief; small tampons of elastic body should be used, coated with soft fibre of prepared cotton impregnated with a mild astringent or antiseptic preparation, or medicated to suit the purpose. So used the supporting tampon is in every sense of the word curative; as the treatment is continuous, normal conditions are more and more approximated, the relative position of the parts is resumed and consequently the circulation is improved from the very first. In this treatment, even in those cases in which the medicated tampon is used, the dry powder precedes the tampon; where the supporting tampon is used alone, in displacements due to relaxation, the astringent powder is in place to strengthen the parts; for morbid conditions accompanying displacements such powder as seems best under the circumstances is applied.

The medicinal and supporting tampons are the ones most commonly used and most serviceable. The fact that a displacement, not only of the uterus, but of all of the pelvic viscera, almost invariably accompanies morbid conditions to a greater or less extent, at once points out the advantage of this treatment, by which medication and reposition are made possible at one and the same time, and support is afforded during the continuance of medication. The supporting tampon prepared of antiseptic material, aided by antiseptic powder, may be left in place for twice or thrice twenty-four hours, although its best effect is during the first thirty-six hours; simple wool or cotton not medicated soon becomes offensive; in ordinary cases treatment is repeated every other day; the tampon is removed a few hours before treatment and the hot douche used. In cases in which frequent applications are not possible, the patient, when properly instructed, soon learns to place the tampon sufficiently well to afford a certain amount of comfort at least, if not complete relief. When so used it should be inserted in the morning before the patient leaves her bed, in order that the organs may be in the best possible state before the parts are irritated and displaced; it is removed at night before the use of the douche.

3. *Alterative and Absorbent.*—The tampon is to the pelvic viscera what the elastic bandage is to external parts, and the importance of the tampon, acting by reason of its elastic pres-

sure, will be best appreciated when we remember that the tissues, in the great mass of cases, and the most trying cases which come under treatment, are in a state of passive congestion—of venous hyperæmia—doughy, thickened, infiltrated, conditions accompanying all chronic inflammations, especially chronic cellulitis. But in addition to the hyperæmic, œdematous, conditions due to disease of the pelvic viscera direct, there are those which are due to stagnation of circulation from morbid conditions in the larger viscera—in the liver, in the intestines. The excellent results of pressure from the elastic bandage externally used are well known, and the success of Taliaferro's cotton-wool treatment upon the pelvic viscera is by no means too highly landed by the ingenious author. Taliaferro, however, formerly packed the vagina almost to distention with cotton wool; whilst now he has refined and modified his treatment, using merely small balls which he packs in the cul-de-sac around the cervix, supporting them by larger ones. Pallen accomplished the same object by filling the vagina with clay. I have never found it necessary to pack the vagina so full as described by Taliaferro, and consider it advisable only in rare cases; as a rule other conditions which are better overcome by the supporting or medicinal tampon, accompany and perhaps determine those for which the tampon is used, hence we have other objects in view as well.

The tampon for alterative purposes purely should be like the supporting tampon, small and of elastic body, but coated with an astringent. This I deem the important feature and the one which in my treatment does away with the necessity of distention. The astringent remedy, used for covering the tampon, serves to contract and strengthen the vaginal walls and to contract the vessels, thus aiding pressure; the cure is more rapid and less trying to the patient. So used, the alterative or stimulating tampon does not annoy as the packing would, but at the same time furthers a healthy state by reposition and medication.

For alterative purposes only, the elastic tampon coated with astringent cotton is used, after dusting the cervix and vaginal walls with a mild astringent powder; the small semi-circular tampon is placed in the cul-de-sac anteriorly and posteriorly to the cervix, supported by several larger tampons, firmly packed, but not distending the tissues. I have rarely had occasion to use the tampon for this purpose alone; wherever it is called for, medication and support should be utilized in the tampon which

is to serve this purpose. We invariably attain a moderate amount of pressure in the dry treatment by the simple presence of the tampons for whatever purpose they may be used. This together with the following is one of the many advantages which invariably accompany, as a mechanical necessity, the use of the tampons in the dry treatment. When used for the purpose of support it invariably exercises an alterative and stimulating effect; when used for medicinal purposes the same object can readily be attained by using the elastic astringent tampon as a support for the medicinal tampon, or by using a number of tampons with elastic body covered with a medicinal agent. Thus sufficient pressure is exercised to attain the object.

To appreciate the alterative effect of the tampon the result must be seen: the bluish, edematous, and enlarged cervix of a retroverted hyperplastic uterus, pressing upon the rectum, dragging down with it the vaginal walls, as it appears when the tampon is placed, will not be recognized forty-eight hours later, when this is removed: the swelling has disappeared, the cervix is smaller, pale, especially the mucous membrane has lost its succulence, and the vaginal and cervical mucosa appears thin and pale, the edematous swelling has completely disappeared. I have not in vain compared the effect of the tampon so used to the elastic bandage; it may be made to be fully as effective.

The physician will rarely find it necessary to use the tampon alone as an alterative and stimulant; if he follows out the dry treatment, and properly uses the tampon for medicinal and supporting purposes, he will soon overcome these conditions by reason of the mechanical effect exercised by the astringent body of the tampons used; the alterative tampon may be made to serve at the same time as a splint and rest-giver, an antiseptic, cleanser, and protector.

4. *As a splint* and rest-giver.--The tampon should be like the supporting tampon, of elastic body covered with an antiseptic, used together with bismuth or an antiseptic powder.

5. *As an antiseptic*, cleansing and absorbent agent.--If used for this purpose alone, we should, of course, always use an absorbent antiseptic cotton, and where there is much discharge this is desirable. But the tampon, for whatever purpose used, accomplishes this to a great extent: it is one of the advantages afforded by the treatment usually resorted to for more important objects. In some light cases of profuse discharge, in case of puru-

lent secretion or disintegrating malignant growths, we use the tampon for this purpose direct. It is then made as large as possible; of an antiseptic absorbent cotton and frequently changed.

6. *As a protector* against the friction of parts, and against cold, the same soft antiseptic tampon is used, but for the first-mentioned purpose it should be made with an elastic body.

7. *As a support to instruments or remedial agents.*—In the dry treatment the tampon is often used to hold a medicinal or supporting tampon in place, and for this purpose it should be of medium size; one or more can be used: of elastic body with an astringent coating, which serves to fix it in place, causing a certain adhesion by the contraction of the vaginal walls in contact with the agent. A thin layer of iron cotton answers the purpose admirably; but in its prolonged use care must be taken to have only a thin film, as excoriation will otherwise follow if any pressure is made for a length of time upon one and the same place. Of alum cotton a heavier layer may be used, as the strongest of this contains only 10 per cent of alum. I might here add that where iron or iodine-cotton is used it is well to caution the patient with a profuse secretion against the possibility of staining her clothing and to advise her to wear a cloth, as the discharge, after saturating the tampon, carries away with it part of the medicinal agent used, and causes a slight stain in the clothing. This is the only disagreeable effect accompanying the dry treatment and is very mild indeed compared to the annoying accompaniments of other methods of treatment.

The tampon used to hold in place the medicated or supporting tampon should find a rest upon the floor of the pelvis, and, to be effective, must reach beyond the perineal body. For this purpose a larger tampon may be used, but as the physician who engages in this method of treatment has on hand a number of the medium size tampons almost invariably used, he will do as well to use several of them in place of one larger one.

We may also use the tampon to hold in place the intrauterine pencil, but as a rule tampons serving other purposes accomplish this at the same time.

As I speak only of the tampon as used in the dry treatment, I will not refer to it as a holder of tents or intrauterine stems, nor will I speak of it as a hæmostatic, in packing the vagina in

hemorrhage post partum or post abortem, or as a dilator for contracted tissues. As such it is well known, and moreover the tamponade of the vagina for hæmostatic purposes should never be resorted to in gynecological practice: the source of hemorrhage must be directly reached; if this be an eroded os, a small pledget of styptic cotton, of the size of a half-dollar and not as thick, pressed against the cervix by a supporting tampon will answer the purpose: we need no packing.

The glycerin tampon we can well dispense with. The method of applying to the uterus or vagina remedies by means of tampons saturated with glyceroles is an extremely filthy method, which may be looked upon as obsolete since medicated cottons have appeared, and there is but one condition under which a treatment so needlessly annoying to the patient may be used, that is, where the emollient effect of the glycerin itself is desired. But since these cases can be better overcome by proper use of the dry method, and remedies properly applied, we can certainly afford to dispense with this extremely wet treatment. Though good in itself, it accomplishes nothing which cannot be as well obtained by the more cleanly and less annoying dry treatment; it is limited in its usefulness to a very narrow sphere and in that directly to the glycerin effect, as the solid mass afforded by a glycerin tampon has no redeeming mechanical feature which may tempt us to use it; the dry tampon, on the contrary, serving a variety of purposes.

Resumé.—*The dry treatment* is merely an additional weapon in the hand of the gynecologist, as it excludes no other method of treatment, but I sincerely trust that the excellent results which can be thus accomplished will do away with the abuse of intrauterine medication and of the pessary. The endometrium will cease to be the point of attack, and now that the gynecologist has a method of reaching a larger area of the diseased pelvic tissues, he will search more carefully for the true centre of disease, and not invariably pounce upon the long maltreated endometrium which is so small and sensitive a membrane and so nearly connected with the easily ignited peritoneal covering of these viscera, by means of the Fallopian tubes and the great system of lymphatics, that any insult offered this delicate membrane is answered too rapidly by more vital parts. The endometrium upon which heretofore almost all treatment has centred is rarely the primary or most

important factor in the morbid conditions of the female genitalia; if it be so, the dry treatment by no means interferes with proper medication, nor does it interfere with the medication of the endometrium if secondarily diseased. I would urge that this membrane be treated more rationally, as we treat other mucous membranes; why should we apply pure tincture of iodine, a strong solution of nitrate of silver, or fuming nitric acid, to the endometrium any more than we do to the throat or mucous membrane of the nose or pharynx? In certain cases it is indeed the proper remedy, but as a routine treatment it is dangerous and injurious and should be abolished. We should put the endometrium upon a level with other mucous membranes and treat it accordingly, in fact with greater care, on account of its intimate connection with the dangerous tissues which surround it. An injury to it is almost like a fuse to a powder-mine, and not less so is the pessary to many of the displaced uteri which are surrounded by inflamed or inflammable tissue. With a more rational treatment of the endometrium, with the use of electricity both with the galvanic and faradic currents and the aid of postural treatment, the gynecologist can with safety and certainty accomplish results as striking as those accomplished by the surgeon.

For the successful treatment of these diseases, usually of long standing, affecting the most important organs, the functional centres of woman's life, we must endeavor to correct every variation, and we must utilize all agents and every method available to restore normal conditions and healthy action.

Among the neglected and apparently unimportant methods, but which in truth are potent factors, I class *posture* and the material or *quality of the support* for the recumbent body. Night and day, a gynecological patient who obeys instructions lies down three-fourths of the time; the relation and position of the organs in the pelvis is greatly modified by the *posture* of the invalid during this time, and by the *kind of bed* upon which she lies; the posture must be such as to favor a restoration of the normal condition of the parts, but without a level, unimpressible mattress this can never be attained. A good horsehair mattress is essential; a feather bed or an elastic spring mattress is positively injurious, as this yields to the weight of the body at its heaviest part, the pelvis, and a most unfavorable position is thus achieved. The patient who has once experi-

enced the comforts of an unyielding horsehair mattress will never return to springs or feathers; while rest upon the former, in proper posture, gives comfort and relief from pain, upon the latter this may be aggravated or even excited.

Eighteen or twenty hours' rest in a position favoring restoration will further the efforts of the physician by far more than the same time passed with the effects of gravity counteracting the labors of the practitioner. We must avail ourselves of every useful aid, whilst we rely, in the main, upon powders and cotton for medication and support.

I look upon the dry treatment as a step forward in medical gynecology which has been so long neglected and clouded by the splendor and brilliancy of surgical gynecology; and I am convinced that by returning to this underestimated and forgotten field much good can yet be accomplished. I cannot emphasize too strongly that the *dry treatment is not to replace, but to do away with the abuse of other methods of treatment*; since by this a safe method of medication and reposition is afforded, I trust that it will, with its palpable and evident advantages, do away with the free use and the abuse of intra-uterine medication and of pessaries. With the uterine mucosa treated as other mucous membranes are treated; with the pessary limited to its proper sphere, uterine therapeutics will be more safe and more satisfactory; by giving rest to the viscera, by supporting the uterus and assisting relaxed ligaments, many of the causes of suffering of women are removed, and greater certainty of results is assured from treatment.

In conclusion, that I may not be misunderstood as seeking to establish the dry method as *The Treatment* exclusively to be followed in gynecological therapeutics, I will define the position to which I deem it properly entitled amongst the methods now adopted in practice.

Surgery I place foremost: the field of surgery proper is, of course, undisputed, but even in these cases in which relief is possible by treatment, it is my practice to resort to the knife if decided success does not rapidly follow the treatment inaugurated, since, in the present status of gynecological surgery, operation is fraught with little danger, and the result to be expected is always more perfect than could be expected from any treatment, and accomplished in a comparatively short time.

For treatment proper I rely upon the dry method and the

electric current, aided by postural treatment and the hot douche, and, if need be, by *mild* intrauterine medication, methods gentle and safe, the success of which must convince the practitioner that it is no longer necessary to endanger suffering, health-seeking woman by the applicator and the pessary.

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